Web Services and Applications Deployment Guide

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Configuring Workspace Web Edition & Web Services

Contents

Configuration for the Workspace Web Edition & Web Services node is handled in three files:

- `server-settings.yaml`
- `onpremise-settings.yaml`
- `cassandra-cluster.yaml`

You can find these files in the main Workspace Web Edition & Web Services config folder you created in Step 6 of the Deploying the Web Application procedure.

Modifying the Server Settings

Start of Procedure

1. Open the `server-settings.yaml` and review the options. This file contains a number of core parameters that are used by the server.

   The following is an unmodified file:

```
externalApiUrl: [ToBeChanged: "PUBLIC_SCHEMA_BASE_URL"]/api/v1
 internalApiUrl: [ToBeChanged: "INTERNAL_SCHEMA_BASE_URL"]/api/v1
 externalApiUrlV2: [ToBeChanged: "PUBLIC_SCHEMA_BASE_URL"]/api/v2
 internalApiUrlV2: [ToBeChanged: "INTERNAL_SCHEMA_BASE_URL"]/api/v2
 reconnectAttempts: [ToBeChanged: "RECONNECT_ATTEMPTS"]
 reconnectTimeout: [ToBeChanged: "RECONNECT_TIMEOUT"]
 activationTimeout: 12000
 connectionTimeout: 4000
 configServerActivationTimeout: 35000
 configServerConnectionTimeout: 15000
 contactCenterSynchronizationTimeout: 60000
 opsUserName: [ToBeChanged: "OPS_USER_NAME"]
 opsUserPassword: [ToBeChanged: "OPS_USER_PASSWORD"]
 applicationName: [ToBeChanged: "APPLICATION_NAME"]
 applicationType: [ToBeChanged: "APPLICATION_TYPE"]
 cmeUserName: [ToBeChanged: "CME_USER_NAME"]
 cmePassword: [ToBeChanged: "CME_PASSWORD"]
 syncNode: [ToBeChanged: true|false]
 inactiveUserTimeout: 60
```

2. Review the General Configuration and Connectivity options to learn more about the default options included in the `server-settings.yaml` file, as well as the other options you can add to adjust Workspace Web Edition & Web Services for your solution. Make sure to update all the options marked `[ToBeChanged]`.

   > **Important**
   >
   > In each Workspace Web Edition & Web Services cluster, one node must be configured as the synchronization node: `syncNode = true`. All other nodes in the cluster must have `syncNode = false`.

3. Save your changes and close the file.

4. Open the `onpremise-settings.yaml` file and review the options. This file contains parameters that are used to connect to Configuration Server.

   The following is an unmodified file:

   ```
   cmeHost: localhost
    cmePort: 8888
    countryCode: US
   ```

   The following options are valid in this file:

- `cmeHost` – The Configuration Server host name (FQDN) or IP
- `cmePort` – The Configuration Server port
- `backupCmeHost` – The backup Configuration Server host name (FQDN) or IP
- `backupCmePort` – The backup Configuration Server port
- `countryCode` – The premise contact center's country code

> **Important**
>
> Configure the `backupCmeHost` and `backupCmePort` options if there is a backup Configuration Server in the Genesys environment and you want high-availability support.

- Save your changes and close the file.
- Open the `cassandra-cluster.yaml` file and review the options.

  The following is an unmodified file:

```
thrift_port: 9160
jmx_port: 7199
keyspace: sipfs
nodes: [ToBeChanged: "CASSANDRA_PRIMARY_DC_NODES"]
backup_nodes: [ToBeChanged: "CASSANDRA_BACKUP_DC_NODES"]
replication_factor: [ToBeChanged: "REPLICATION_FACTOR"]
write_consistency_level: [ToBeChanged: "CL_LOCAL_QUORUM" for multi-datacenters env,
"CL_QUORUM" for single-DC env.]
read_consistency_level: [ToBeChanged: "CL_LOCAL_QUORUM" for multi-datacenters env,
"CL_QUORUM" for single-DC env.]
max_conns_per_host: 16
max_cons: 16
max_pending_conns_per_host: 80
max_blocked_threads_per_host: 160
```

- Modify the settings as needed, making sure to update all the options marked `[ToBeChanged]`:
  - nodes — A comma-separated list of Cassandra node IPs or host names.
  - backup_nodes — A comma-separated list of backup Cassandra node IPs or host names.
  - `replication_factor` — A replication factor appropriate for your Cassandra topology. This value should be the same as the replication factor you set in Step 2 of the Creating the Cassandra Keyspace procedure.

- `write_consistency_level` — Set this value according to your Cassandra topology:

Development (1 Cassandra node)	Single Datacenter (1 datacenter with a minimum of three Cassandra nodes)	Two Datacenters (datacenters with a minimum of three Cassandra nodes in each datacenter)
CL_ONE	CL_QUORUM	CL_LOCAL_QUORUM

- `read_consistency_level` — Set this value according to your Cassandra topology:

Development (1 Cassandra node)	Single Datacenter (1 datacenter with a minimum of three Cassandra nodes)	Two Datacenters (datacenters with a minimum of three Cassandra nodes in each datacenter)
CL_ONE	CL_QUORUM	CL_LOCAL_QUORUM

The following options tune the Cassandra database access. The default values were used by Genesys during internal load tests.

- `max_conns_per_host` — Maximum number of connections to allocate for a single host's pool.
- `max_cons` — Maximum number of connections in the pool.
- `max_pending_conns_per_host` — Maximum number of pending connect attempts per host.
- `max_blocked_threads_per_host` — Maximum number of blocked clients for a host.

- Save your changes and close the file.

End of Procedure

Tuning the Workspace Web Edition & Web Services Host Performance

Complete the steps below on each Workspace Web Edition & Web Services node to tune the performance of the host environment.

Start of Procedure

1. Run the following commands:

```
sudo sysctl -w net.core.rmem_max=16777216
 sudo sysctl -w net.core.wmem_max=16777216
 sudo sysctl -w net.ipv4.tcp_rmem="4096 87380 16777216"
 sudo sysctl -w net.ipv4.tcp_wmem="4096 16384 16777216"
 sudo sysctl -w net.core.somaxconn=4096
 sudo sysctl -w net.core.netdev_max_backlog=16384
 sudo sysctl -w net.ipv4.tcp_max_syn_backlog=8192
 sudo sysctl -w net.ipv4.tcp_syncookies=1
 sudo sysctl -w net.ipv4.tcp_congestion_control=cubic
```

2. Increase the file descriptors by adding the following to the `/etc/security/limits.conf` file:

```
<user_name>               hard nofile        100000
 <user_name>               soft nofile        100000
```

- <user_name> — The name of the user or group that is starting Jetty.

End of Procedure